Model LWS RBSP Payload Used for Spacecraft Trade Studies

The following table provides a description of one possible instrument complement that can achieve a substantial portion of the Living with a Star Radiation Belt Storm Probes mission science objectives and reflects the resource envelope that NASA expects to be able to select. The list of candidate instrument types is not intended to restrict the possible approaches, nor is the list intended to preclude consideration of investigations that propose other instruments or combinations of instruments that can provide the necessary observations. In all cases, it is emphasized that this AO solicits complete science investigations, of which these model instruments are only one means for obtaining the necessary data.

Instrument Type	**Measurement**	**Mass (kg)**	**Orbit Average Power (W)**	**Data Rate (kbps)**
Radiation Belt electrons and protons	20 keV - 1 MeV electron pitch angle distributions 1 MeV - 10 MeV electron distributions 1-20 MeV proton distributions	15.3	8.0	1.1
Fields and Waves Experiment	DC and AC electric field AC magnetic field electrostatic and electromagnetic waveforms	34.7	10.9	6.8
Fluxgate Magnetometer	DC magnetic field	10.8	3.5	0.8
Ion Composition	20 – 600 keV H+ and O+ distributions	6.2	4.6	0.7
TOTALS		67.0	27.0	9.4